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The Umbilical Scar, A Sexually Dimorphic Character

in *Heterodon platyrhinos*

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Sexually dimorphic characters in snakes are notoriously few. Well known are the differences in ventral and subcaudal counts and relative body proportions. Dowling (1950) has recently shown dimorphism in labials, temporals, posterior scale count, ventral color pattern, and absolute size in *Seminatrix*. But a tendency toward differential position of the umbilical scar in the two sexes is apparently unrecorded in the literature. The scar is obvious only on young, difficult-to-examine individuals, which may account for its neglect. Records of umbilical scar position were made incidentally during the examination of hog-nosed snakes in the preparation of a systematic treatment of the genus, but seem of sufficient general interest to warrant preliminary publication. The position of the scar, in terms of ventral plates involved, is about as accurate an index of sex as the ventrals or the caudals.

The scar, which interrupts the ventrals in the midventral line, varies from involving 2 to 6 ventrals in the 21 females examined and from 2 to 5 ventrals in the 21 males. The actual range for the anterior end of the scar in males varies from ventral 98 to ventral 108; in females from 107 to 120. The posterior end varies from the 99th ventral to the 111th in males, and from the 109th to the 123rd in females. The following frequency distribution,

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tStudies of the black swamp snake, *Seminatrix pygaea* (Cope), with descriptions of two new subspecies. Misc. Publ. Univ. Mich. Mus. Zool., no. 76, p. 1-38.

based upon specimens from the southern portion of the range of *Heterodon platyrhinos*, indicates this difference:

Anterior end of scar			Posterior end of scar		
Ventrals	Males	Females	Ventrals	Males	Females
98- 99	2		98- 99	2	
100-101	5		100-101	1	
102-103	5		102-103	3	
104-105	3		104-105	4	
106-107	4	4	106-107	5	
108-109	2	2	108-109	4	2
110-111		4	110-111	2	2
112-113		6	112-113		4
114-115		3	114-115		3
116-117		1	116-117		6
118-119		0	118-119		2
120-121		1	120-121		1
			122-123		1

The embryological reasons for this apparent dimorphism remain obscure at this time; however, they are probably involved in the ontogenetic production of the differential body proportions between the sexes of snakes. How general among snakes this dimorphism might be is still a matter for speculation. It is to be hoped that workers in other groups will examine their specimens for this interesting condition.